# Permit Fact Sheet

## General Information

| | |
|---|---|
| Permit Number: | WI-0061506-04-0 |
| Permittee Name: | Zahns Farms LLC |
| Address: | 11620 County Road H |
| City/State/Zip: | Gillett WI 54124 |
| Discharge Location: | Same as facility address |
| Receiving Water: | Little River & Oconto River Watersheds and groundwaters of the state |

| **Animal Units** | | | | | |
|---|---|---|---|---|---|
| | **Current AU** | | **Proposed AU** **(Note: If all zeroes, expansions are not expected during permit term)** | | |
| **Animal Type** | **Mixed** | **Individual** | **Mixed** | **Individual** | **Date of Proposed Expansion** |
| Dairy Calves (under 400 lbs.) | 420 | 0 | 500 | 0 | 04/01/2021 |
| Milking and Dry Cows | 6720 | 6864 | 11200 | 11440 | 04/01/2021 |
| Total | 7140 | 6864 | 11700 | 11440 | |

## Facility Description

Brief Facility Description: Zahns Farms LLC is an existing Concentrated Animal Feeding Operation (CAFO) located in the town of Gillett, Oconto County, WI. Zahns Farms LLC is owned and operated by Robert Zahn & his family. It currently has 6,580 animal units (4,400 milking & dry cows, 1,400 heifers, and 700 calves) and is proposing to expand to 11,700 animal units (8,000 milking & dry cows, 1,600 heifers, and 900 calves) by 2021. Included as part of these expansion plans are a new Freestall Barn, new Waste Storage Facility, and upgrades to the Feed Storage Area among others. Zahns Farms LLC has 8,916 acres (1299.1 owned and 7,616.9 controlled through contracts, rental agreements or leases, or under manure agreements) of which 8,853.1 are spreadable acres on 25' setbacks under SWQMA option 1 and 8,698.4 spreadable acres under SWQMA option 5.

The Proposed permit contains the following sample points:

| **Sample Point Designation For Animal Waste** | | |
|---|---|---|
| **Sample Point Number** | **Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)** | |
| 001 | Sample point 001 is for visual monitoring and inspection of CAFO outdoor vegetated areas located at the main dairy site. This area is approximately 1.3 acres in size & located directly east of WSF #007 and south of the driveway. This area was previously used as an outdoor lot but will now be transitioned to a CAFO Outdoor Vegetated Area. Proper operation and maintenance is required to ensure sufficient vegetative | |

| Sample Point Designation For Animal Waste | | |
|---|---|---|
| **Sample Point Number** | **Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)** | |
| | cover, as defined in s. NR 243.03 is sustained. Quarterly inspections are required and shall be recorded according to monitoring program. See permit schedules for installation and management plan requirements. | |
| 002 | Sample point 002 is for visual monitoring and inspection of the existing feed storage area and associated runoff control system located in the northeast corner of the main dairy. The existing silage pad is located north of the driveway and is approximately 531,800 square feet. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections will be required and shall be recorded according to monitoring program. Engineering plans and specifications for the silage pad were reviewed and approved by the department in 2013. A 2015 review of Post Construction documentation found the feedpad & associated runoff control system was not constructed as approved. See Permit Schedules for actions needed. The existing 135,000 sq ft haylage pad is located south of the driveway has never been evaluated & does not have runoff controls. | |
| 006 | Sample point 006 is for solid manure sources that are directly land applied and not stored in a waste storage facility. This includes solid sources such as calf hutch manure, maternity pen bedpack, heifer bedpack, steer manure, etc that is generated at the main dairy site. Representative samples shall be taken for each manure source type. | |
| 007 | Sample point 007 is for an existing liquid waste storage facility (WSF #007). WSF #007 is an earthen-lined storage located to the southeast of the feed storage area. This facility has a total volume of 2,748,411 gallons and a maximum operating level capacity of 2,093,732 gallons. The storage accepts manure and process wastewater from the existing heifer barn & lot and runoff from the feed leachate basin. The facility was constructed in 1990 and has not been evaluated since the time of construction. See permit schedules for a list of required actions. | |
| 008 | Sample point 008 is for an existing liquid waste storage facility (WSF #008). WSF #008 is an earthen-lined storage located directly north of the original freestall barns. This facility has a total volume of 8,291,019 gallons and a maximum operating level capacity of 7,382,334 gallons. The storage accepts manure and process wastewater from the existing freestall barns and is connected to WSF #011 via gravity overflow channel. The facility was constructed in 2000 and has not been evaluated since time of construction. | |
| 009 | Sample point 009 addresses all digested liquids located within the 3 proposed digester cells. Manure will be pumped from a proposed manure processing building to the digesters and then returned to the manure processing buildings (for solids removal) after the digestion is completed. Liquids will then be transferred to WSF #008 & WSF #011. Sampling from within the digester cell(s) for nutrient content is only required if the liquids are to be manually pumped from the cell(s) and directly land applied. Plans and specifications for the digesters will need to be submitted & approved by the Department to meet permit requirements prior to construction. | |
| 010 | Sample point 010 is for land applied separated manure solids. Fiber will typically be reused as bedding and will be stored in a proposed solid separation shed. The solid separation shed will have a concrete floor and walls. Plans and specifications for the solid stacking area will need to be submitted & approved by the Department to meet permit requirements prior to construction. Sampling for nutrient content will only be required if the digested solids are directly land applied. | |
| 011 | Sample point 011 is for an existing liquid waste storage facility (WSF #011). WSF #011 is a concrete-lined storage located directly north of WSF #008. This facility has a total volume of 18,913,948 gallons | |

| Sample Point Designation For Animal Waste | | |
|---|---|---|
| **Sample Point Number** | **Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)** | |
| | and a maximum operating level capacity of 17,130,169 gallons. The storage accepts manure and process wastewater from the existing freestall barns and is connected to WSF #008 via overflow channel. The facility was constructed in 2011 and has not been evaluated since time of construction. | |
| 012 | Sample point 012 is for a proposed liquid waste storage facility (WSF #012). WSF #012 is proposed to be located directly north of WSF #011 and will be needed to maintain 180 days of storage with the expansion in animal units the farm has proposed during this permit term. The proposed pit will have a concrete liner and a proposed total volume of approximately 23,835,421 gallons & MOL volume of 21,112,642 gallons. This storage will accept manure from the proposed freestall barn and via an overflow channel from WSF #011. Plans and specifications for the proposed waste storage facility were approved by the department on 10/12/2020. See permit schedules for a list of required actions. | |
| 015 | Sample point 015 is for solid manure land applied from the solid stacking pads on the farm. The stacking pads are located on the west end of the 1st & 2nd heifer barns located south of County Road H and on the west side of sample point 012. The heifer barn stacking pads have concrete walls and a concrete working surface. Bedded pack and manure from the heifer barns is stored here. The stacking pad on the 1st barn was constructed in 2008 and was last evaluated in 2009. The stacking pad on the 2nd barn was constructed in 2014 and has not been evaluated since time of construction. The proposed stacking pad by sample point 012 will have a concrete floor and slope towards the waste storage facility. This facility was approved by the department on 10/12/2020 and proposed to be constructed in 2020 or 2021. | |
| 016 | Sample point 016 is for manure solids removed from bottom of all liquid waste storage facilities. This includes manure-laden solids, manure fiber solids, etc. Representative samples shall be taken from each waste storage facility. | |
| 017 | Sample point 017 is for solid manure land applied from approved headland stacking sites. Representative samples must be taken prior to land application. Stacks are defined as part of the production area and therefore subject to the production area discharge limitations of this permit. Weekly inspections of stack runoff controls are required and shall be recorded according to monitoring program. | |
| 018 | Sample point 018 is for visual monitoring and inspection of all production site storm water conveyance systems. This includes roof gutter and downspout structures, drainage tile systems, grassed waterways and other diversion systems that transport uncontaminated storm water. Proper operation and maintenance is required to keep uncontaminated runoff diverted away from manure and process wastewater handling systems. Weekly inspections are required and shall be recorded according to monitoring program. | |
| 019 | Sample point 019 is for visual monitoring and inspection of the calf hutch areas and associated runoff control system. Hutches are bedded with straw on a gravel base, but do not have engineered runoff controls. Proper operation and maintenance is required to ensure to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program. | |

# 1 Livestock Operations - Proposed Operation and Management

**Production Area Discharge Limitations**

Beginning on the effective date of the permit, the permittee may not discharge pollutants from the operation's production area (e.g., manure storage areas, outdoor animal lots, composting and leachate containment systems, milking center wastewater treatment/containment systems, raw material storage areas) to navigable waters, except in the event a 25-year,

24-hour rainfall event (or greater) causes the discharge from a structure which is properly designed and maintained to contain a 25-year, 24-hour rainfall event for this location as determined under s. NR 243.04. If an allowable discharge occurs from the production area, state water quality standards may not be exceeded.

**Runoff Control**

The permit requires control of contaminated runoff from all elements of the production area to prevent a discharge of pollutants to navigable waters in accordance with the Production Area Discharge Limitations and to comply with surface water quality standards and groundwater standards. Beginning on the effective date of this permit, (if needed) interim measures shall be implemented to prevent discharges of pollutants to navigable waters. In addition, permanent runoff control system(s) shall be designed, operated and maintained in accordance with the requirements found in USDA Natural Resources Conservation Service standards and ch. NR 243, Wis. Adm. Code. If any upgrading or modifications to runoff controls are necessary, formal engineering plans and specifications must submitted to the Department for approval.

**Manure and Process Wastewater Storage**

The permit requires the operation to have adequate storage for manure and process wastewater and that storage or containment facilities are designed, operated and maintained to prevent overflows and discharges to waters of the state. In order to prevent overflows, the permittee must maintain levels of materials in liquid storage or containment facilities at or below certain levels including a one foot margin of safety that can never be exceeded. If any upgrading or modifications to the storage facilities are necessary, formal engineering plans and specifications must submitted to the Department for approval.

The permittee currently has approximately 180 days of storage for liquid manure. After the proposed expansion in animal units and construction of the proposed waste storage facility, the farm will have approximately 183 days of storage.The permittee must maintain 180 days of storage, unless temporary reductions in required storage are approved by the Department.

**Solid Manure Stacking**

The operation has proposed to stack solid manure. All stacking of solid manure shall be done in accordance ch. NR 243, Wis. Adm. Code, which includes restrictions from NRCS Standard 313. Stacking of manure is considered to be part of the production area and is subject to the Production Area Discharge Limitations.

**Ancillary Service and Storage Areas**

The permittee shall take preventative maintenance actions and conduct visual inspections to minimize pollutant discharges from areas of the operation that are not part of the production area or land application areas. These areas are called ancillary service and storage areas and include access roads, shipping and receiving areas, maintenance areas, refuse piles and CAFO outdoor vegetated areas.

**Nutrient Management**

With 6,580 current animal units (4,400 milking & dry cows, 1,400 heifers, and 700 calves), it is estimated that approximately 54,037,755 gallons of manure and process wastewater and 4,982 tons of solid manure will be produced in the first year of the permit term. A planned herd size of 11,700 animal units (8,000 milking & dry cows, 1,600 heifers, and 900 calves) is expected by 2021, and is estimated that approximately 89,558,345 gallons of manure and process wastewater and 5,931 tons of solid manure will be produced per year. The permittee operates 8,916 acres (1,299.1 owned and 7,616.9 controlled through contracts, rental agreements or leases, or under manure agreements) of which atleast 8,698.4 acres are available (or open) to receive manure and process wastewater on an annual basis The permit requires all landspreading of manure and process wastewater be completed in accordance with an approved nutrient management plan. The permit will require sampling and analysis of manure and process wastewater that will be landspread. Landspreading rates must be adjusted based on sample analysis. The

permit requires the permittee to maintain a daily log that documents landspreading activities. The permit also requires the submittal of an annual report that summarizes all landspreading activities. Plans must be updated annually to reflect cropping plans and other operational changes. Among the requirements, the plans must include detailed landspreading information including field by field nutrient budgets.
The permittee is required to implement a number or practices to address potential water quality impacts associated with the land application of manure and process wastewater. Among the permit conditions are restrictions on manure ponding, restrictions on runoff of manure and process wastewater from cropped fields, and setbacks from wells and direct conduits to groundwater (e.g., sinkholes, fractured bedrock at the surface). In addition, the permittee must implement a phosphorus based nutrient management plan that addresses phosphorus delivery to surface waters by basing manure and process wastewater applications on soil test phosphorus levels or the Wisconsin Phosphorus index. Additional phosphorus application restrictions apply to fields that are high in soil test phosphorus (>100 ppm).

The permitee must also implement conservation practices when applying manure near navigable waters and their conduits, referred to as the Surface Water Quality Management Area (SWQMA). These practices include a 100-foot setback from navigable waters and their conduits, a 35-foot vegetated buffer adjacent to the navigable water or conduit, or a practice that provides equivalent pollutant reductions equivalent to or better than the 100-foot setback.

In addition, the permittee must comply with restrictions on land application of manure and process wastewater on frozen or snow-covered ground. Included in these restrictions is a prohibition on surface applications of solid manure ($\geq$12% solids) on frozen or snow-covered ground during February and March. Non-emergency surface applications of liquid manure (<12%) on frozen or snow-covered ground are prohibited.

**Monitoring and Sampling Requirements**

The permittee must submit a monitoring and inspection program that outlines how the permittee will conduct self-inspections to determine compliance with permit conditions. These self-inspections include visual inspections of water lines, diversion devices, storage and containment structures and other parts of the production area. The permit requires periodic inspections and calibrations of landspreading equipment. The permittee must take corrective actions to problems identified inspections or otherwise notify the Department. Samples of manure, process wastewater and soils receiving land applied materials from the operation must also be collected and analyzed.

**Sampling Points**

The permit identifies the different sources of land applied materials (e.g., manure storage facilities, milking centers, egg-washing facilities) as "Sampling Points." For these Sampling Points, the permittee is required to sample and analyze the different sources for nutrients and other parameters which serve as the basis for determining rates of application for these materials. Other areas are also identified as Sampling Points as a means of identifying them as areas requiring action by the permittee, such as an upgrade or evaluation of a certain system or structure (e.g., runoff control systems), even though sampling is not actually required.

## Sample Point Number: 001- CAFO Outdoor Vegetated Area; 002- Feed Storage Area; 018- Storm Water Runoff, and 019- Calf Hutch Areas

### 1.1.1 Changes from Previous Permit

**Sample point 013 (Outdoor Lot-Bahrke Farm) was removed from the permit. Zahns Farms no longer has any animals housed at the satellite facility known as the Bahrke farm, so all sample points associated with this facility were removed.**

**Other Sample point language was updated, and sample points 018, and 019 were added to more accurately describe the existing production area.**

### 1.1.2 Explanation of Operation and Management Requirements

**Proper operation and maintenance is required to ensure unlawful discharges to waters of the state do not occur. Weekly or quarterly inspections are required and shall be recorded according to the monitoring plan.**

## Sample Point Number: 006- Misc.Solid Manure - Main Dairy; 010- Seperated Manure Fiber/Solids; 015- Stacking Pads (solids); 016- WSF Solids Removal, and 017- Headland Stacking Sites

| Monitoring Requirements and Limitations | | | | | |
|---|---|---|---|---|---|
| **Parameter** | **Limit Type** | **Limit and Units** | **Sample Frequency** | **Sample Type** | **Notes** |
| Nitrogen, Total | | lbs/ton | Quarterly | Grab | |
| Nitrogen, Available | | lbs/ton | Quarterly | Calculated | |
| Phosphorus, Total | | lbs/ton | Quarterly | Grab | |
| Phosphorus, Available | | lbs/ton | Quarterly | Calculated | |
| Solids, Total | | Percent | Quarterly | Grab | |

### 1.1.3 Changes from Previous Permit

**Sample point 005 (Solid Manure-Bahrke Farm) was removed from the permit. Zahns Farms no longer has any animals housed at the satellite facility known as the Bahrke farm, so all sample points associated with this facility were removed.**

**Sample Point 010 was reactivated to account for solids anticipated to be generated by the proposed anaerobic digestion system.**

**Sample point 014 was removed due to the lack of composted solids produced on the farm.**

**Other Sample point language was updated, and sample points 016, and 017 were added to more accurately describe the existing production area.**

### 1.1.4 Explanation of Operation and Management Requirements

**Solid manure sources must be properly sampled and land applied according to the permit and nutrient management plan.**

### Sample Point Number: 007- WSF #007; 008- WSF #008; 009- Digested Liquids; 011- WSF #011, and 012- Proposed WSF #012

| Monitoring Requirements and Limitations | | | | | |
|---|---|---|---|---|---|
| **Parameter** | **Limit Type** | **Limit and Units** | **Sample Frequency** | **Sample Type** | **Notes** |
| Nitrogen, Total | | lb/1000gal | 2/Month | Grab | |
| Nitrogen, Available | | lb/1000gal | 2/Month | Calculated | |
| Phosphorus, Total | | lb/1000gal | 2/Month | Grab | |
| Phosphorus, Available | | lb/1000gal | 2/Month | Calculated | |
| Solids, Total | | Percent | 2/Month | Grab | |

### 1.1.5 Changes from Previous Permit

**Sample Point 009 was reactivated to account for liquids anticipated to be generated by the proposed anaerobic digestion system.**

**Other Sample point language was updated to more accurately describe the existing production area.**

### 1.1.6 Explanation of Operation and Management Requirements

**Liquid manure must be properly stored and land applied according to the permit and nutrient management plan.**

# 2 Schedules

## 2.1 Emergency Response Plan

| Required Action | Due Date |
|---|---|
| Update the Emergency Response Plan: Update the written Emergency Response Plan within 30 days of permit coverage, and submit to the Department. | 12/31/2020 |

## 2.2 Monitoring & Inspection Program

Use of the department's monitoring and inspection program template is encouraged, but optional.

| Required Action | Due Date |
|---|---|
| Proposed Monitoring and Inspection Program: Consistent with the Monitoring and Sampling Requirements subsection, the permittee shall submit a proposed monitoring and inspection program within 60 days of the effective date of this permit. | 01/30/2021 |

## 2.3 Annual Reports

Submit Annual Reports by January 31st of each year in accordance with the Annual Reports subsection in Standard Requirements.

| Required Action | Due Date |
|---|---|
| Submit Annual Report #1: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E | 01/31/2021 |
| Submit Annual Report #2: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E | 01/31/2022 |
| Submit Annual Report #3: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E | 01/31/2023 |
| Submit Annual Report #4: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E | 01/31/2024 |
| Submit Annual Report #5: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E | 01/31/2025 |
| Ongoing Annual Reports: Continue to submit Annual Reports until permit reissuance has been completed. | |

## 2.4 Nutrient Management Plan

Submit annual nutrient management plan (NMP) updates by March 31 of each year. Note, in addition to annual NMP updates, submit NMP amendments and substantial revisions to the department for written approval prior to implementation of any changes to the NMP.

| Required Action | Due Date |
|---|---|
| Management Plan Submittal: Submit any necessary updates to the Nutrient Management Plan to meet the conditions outlined in this permit (see conditions in the Livestock Operational and Sampling Requirements section). | |
| Submit NMP Update #1: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D. | 03/31/2021 |
| Submit NMP Update #2: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D. | 03/31/2022 |
| Submit NMP Update #3: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D. | 03/31/2023 |
| Submit NMP Update #4: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D. | 03/31/2024 |
| Submit NMP Update #5: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D. | 03/31/2025 |
| Ongoing Management Plan Annual Updates: Continue to submit Annual Updates to the Nutrient Management Plan until permit reissuance has been completed. | |

## 2.5 Submit Permit Reissuance Application

| Required Action | Due Date |
|---|---|
| Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration. | 06/03/2025 |

## 2.6 Manure Storage Facility - Engineering Evaluation

Applicable to Sample Point 007, earthen storage constructed in 1990 located southeast of feed storage area.

| Required Action | Due Date |
|---|---|
| Written Report: Submit a written report evaluating the existing manure storage facility's ability to meet the conditions in the Production Area Discharge Limitations and Manure and Process Wastewater Storage subsections and s. NR 243.15, Wis. Adm. Code. (See Standard Requirements for report details.) | 06/30/2022 |
| Plans and Specifications: Submit plans and specifications for Department review and approval in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code, to permanently correct any adverse manure storage conditions. | 02/01/2023 |
| Corrections and Post Construction Documentation: Complete construction on the manure storage facility that permanently corrects any adverse conditions in concurrence with and approval by the Department, by the specified Date Due. Submit post construction documentation within 60 days of completion of the project. | 11/30/2023 |

## 2.7 Digester Waste Treatment System Installation

Applicable to proposed 3 cell digester waste treatment system

| Required Action | Due Date |
|---|---|
| Plans and Specifications: Submit complete plans and specifications for a digester waste treatment system 90 days prior to construction of the system for Department review and approval in accordance with s. 281.41, Wis. Stats., and ch. NR 243, Wis. Adm. Code. See Standard Requirements for plan content information. | 09/30/2022 |
| Post-Construction Documentation: Post-construction documentation shall be submitted within 60 days of completion of the project. | 10/31/2023 |

## 2.8 CAFO Outdoor Vegetated Management Plan

Applicable to Sample point 001, Submit and Implement the Management Plan for the CAFO outdoor vegetated area for Department approval

| Required Action | Due Date |
|---|---|
| Submit Management Plan: Submit a management plan for Department review and approval for the CAFO outdoor vegetated area. The plan must include information detailing the boundaries, density of livestock, timeframes for rotation and vegetative recovery, vegetative cover type, percent cover, and other management practices to ensure proper operation as a CAFO outdoor vegetated area in accordance with s. NR 243.13(7). Submit an updated plan to the Department if any changes are made to the plan to verify compliance. Once approved, implement the management plan. | 04/15/2021 |

## 2.9 Feed Storage - Engineering Evaluation

Applicable to Sample point 002, The feed storage area (silage pad) and associated runoff control system located directly east of WSF #008 and north of the driveway

| Required Action | Due Date |
|---|---|
| Written Description of Existing System: Submit an engineering evaluation that includes a written | 06/30/2021 |

| | |
|---|---|
| description of the existing feed storage area & the associated runoff control system and its adequacy to meet the conditions found in the Production Area Discharge Limitations subsection and NR 243.15, Wis. Adm. Code. | |
| Plans and Specifications: Submit plans and specifications for Department review and approval to permanently correct any adverse conditions identified as part of the engineering evaluation for the feed storage area & associated runoff control system in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code. | 02/28/2022 |
| Corrections and Post Construction Documentation: Complete construction of improvements to permanently correct any adverse conditions in concurrence with and approval by the Department, by the specified Date Due. Submit post construction documentation within 60 days of completion of the project. | 11/01/2022 |

## 2.10 Manure Storage Facility - Installation

Applicable to Sample point 012, proposed Waste Storage Facility

| Required Action | Due Date |
|---|---|
| Complete Installation: Complete construction of the manure storage facility. The facility shall be functional and in operation by the specified Date Due. Post construction documentation shall be submitted within 60 days of completion of the project. | 11/30/2021 |

## 2.11 Explanation of Schedules

**Emergency Response Plan, Monitoring and Inspection Program – Schedules consistent with permit requirements.**

**Annual Reports, Nutrient Management Plan, Submit Permit Reissuance Application - Schedules consistent with permit requirements.**

**Other schedule items are required to comply with s. NR 243 and WPDES permit conditions.**

# Attachments:

Substantial Compliance Determination

NM Plan & 180 Day Storage Approval Letters

Public Notice

R-2013-0208 Post Construction Letter

April & June 2020 Correspondence – Farm's response to areas of concern

# Proposed Expiration Date:

**November 30. 2025**

**Prepared By:**

**Brian Hanson Agricultural Runoff Management Specialist**

**Date: 10/15/2020**

# Substantial Compliance Determination

| Permittee Name: Zahns Farms LLC | | Permit Number: 0061506-04-0 |
|---|---|---|
| | Compliance? | Comments |
| Discharge Limits | Yes | Interim Measures in place, see comments below. |
| Sampling/testing requirements | Yes | |
| Groundwater standards | Yes | |
| Reporting requirements | Yes | |
| Compliance schedules | Yes | 1/25/2017 NON for failing to submit reissue application. Has since submitted a complete application. |
| Management plan | Yes | |
| Other: | Yes | |
| Enforcement Considerations | See comments below | |
| In substantial compliance? | Yes<br>Comments: The department referred Zahns Farms LLC to the Wisconsin Department of Justice for violations of WPDES Permit WI-0061506-03-0. The summons, complaint, stipulation, order for judgement, and judgement were filed with the Oconto Cunty Circuit Court September 11, 2019. Schedules items are also included in this permit to address interim measure installed in response to this violation.<br><br>Signature: Brian Hanson Brian Hanson<br>Date: 10/15/2020<br>10/15/2020<br><br>Concurrence: Date: | |

**State of Wisconsin**
**DEPARTMENT OF NATURAL RESOURCES**
**PO Box 7185**
**101 S. Webster Street**
**Madison WI 53707-7185**

**Tony Evers, Governor**
**Preston D. Cole, Secretary**
**Telephone 608-266-2621**
**FAX 608-267-3579**
**TTY Access via relay - 711**

June 22, 2020

FILE REF: R-2020-0082
WPDES Permit #: WI-0061506

Robert Zahn
Zahns Farms LLC
11620 County Hwy H
Gillett, WI 54124

Subject: Evaluation Review for Days of Storage for Zahns Farms LLC, SW¼ Sec 08, T28N, R18E, Gillett Township, Fond Du Lac County – NO ADDITIONAL ACTION REQUIRED

Dear Mr. Zahn:

This letter is to inform you that the Wisconsin Department of Natural Resources (Department) has completed its review of the calculation of days of storage submitted under certification by Jen Keuning, GHD on April 4, 2020 with revisions received on June 22, 2020 on behalf of Zahns Farms LLC.

The Department reviewed the submitted calculations in accordance with s. NR 243.16(1)(c), Wis. Adm. Code. Under s. NR 243.16(3), Wis. Adm. Code, the Department may require additional practices, conditions, or permittee actions based on Department review of the submitted evaluation. For the following liquid manure storage calculations, the Department has determined **no additional actions** on your part are required.

**Days of Available Liquid Waste Storage:** The submitted information states that Zahns Farms LLC has 180 days of liquid waste storage based on the volumes listed in the table below with respect to s. NR 243.15(3)(i) to (k), Wis. Adm. Code. The current number of animal units provided for the calculation is 6,580. The liquid waste volumes are based on the NRCS spreadsheet and other estimated or calculated values and a collection period of 365 days. Runoff collection includes the first flush 0.25 inches of runoff from the existing feed storage area and full collection from the existing concrete barnyard.

| | |
|---|---|
| Total Liquid Waste Storage: | 29,953,378 gallons |
| Total Solids Storage | 278,575 gallons |
| Total 25-yr, 24-hr Precip. on Storage | 785,159 gallons |
| Total 25-yr, 24-hr Collected Runoff | 19,983 gallons |
| Total Freeboard Vol. | 2,263,426 gallons |
| **Total MOL Liquid Waste Storage:** | **26,606,235 gallons** |

| | |
|---|---|
| Manure, Bedding, and Process Wastewater: | 46,647,000 gallons |
| Total Feed Storage Leachate: | 598,400 gallons |
| Total Feed Storage Runoff Collected: | 2,807,788 gallons |
| Total Concrete Yard Runoff Collected: | 98,893 gallons |
| Net Precipitation on Storage Surfaces: | 3,885,674 gallons |
| **Total Liquid Waste Stored Below the MOL** | **54,037,755 gallons** |

Should you have any questions, please contact Tony Salituro, DNR Madison office or your regional CAFO Specialist.

**NOTICE OF APPEAL RIGHTS**

If you believe that you have a right to challenge this decision, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to WIS. STAT. §§ 227.52 and 227.53, you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review must name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to WIS. STAT. § 227.42, you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. All requests for contested case hearings must be made in accordance with WIS. ADMIN. CODE § NR 2.05(5), and served on the Secretary in accordance with WIS. ADMIN. CODE § NR 2.03. The filing of a request for a contested case hearing does not extend the 30-day period for filing a petition for judicial review.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

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CAFO Engineer Supervisor
Watershed Management Program

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Watershed Management Program

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**DEPARTMENT OF NATURAL RESOURCES**
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**Madison, WI 53707**

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September 23rd, 2020

Oconto County
Approval

Robert Zahn
Zahns Farms LLC
11620 County Road H
Gillett, WI 54124

SUBJECT: Conditional Approval of Zahns Farms LLC Nutrient Management Plan, WPDES Permit No. 0061506-04-0

Dear Mr. Zahn:

After completing a review of Zahns Farms LLC 2020-2024 Nutrient Management Plan (NMP) the Wisconsin Department of Natural Resources (Department) is providing conditional approval that it is consistent with s. NR 243.14, Wis. Adm. Code. This part of your WPDES permit application is now ready for the public notice and comment process as required by Ch. 283 Stats.

Before applying manure onto approved fields each season, the Department recommends Zahns Farms LLC review the NMP with those individuals involved with manure applications to ensure all remain familiar with the approved manure spreading protocol, spreading maps, field and map verification, record keeping requirements, and all the conditions of this approval. Specifically, some fields in Zahns Farms LLC may have:

- Soils that may have bedrock or groundwater within 24 inches of surface,
- Multiple setback areas due to streams, conduits to streams, grassed waterways, wetlands or wells, and
- Evidence of possible soil erosion/flow channels. Note: road ditches or other man-made channels may be considered flow channels or conduits to navigable water and may be subject to a SWQMA and setback.

Reviewing the NMP and checking fields for these features and soil conditions prior to manure applications will help Zahns Farms LLC maintain compliance with their WPDES permit and Ch. NR 243 requirements.

## FINDINGS OF FACT

The Department confirms that:

1. A current dairy herd size of 6,580 animal units (4,400 milking & dry cows, 1,400 heifers, and 700 calves). A planned herd size of 11,700 animal units (8,000 milking & dry cows, 1,600 heifers, and 900 calves) by 2021.
2. Manure generation and spreading records indicate your herd will annually generate approximately 54,037,755 gallons of manure and process wastewater and 4,982 tons of solid manure in the first year of the permit term. When the herd reaches full expansion in 2021, records indicate your herd will generate approximately 89,558,345 gallons of manure and process wastewater and 5,931 tons of solid manure.
3. The use of application restriction options 1 and 5 within surface water quality management areas.
4. The use of phosphorus delivery method P Index.

5. That Zahns Farms LLC currently has 8,916 acres (1,299.1 owned and 7,616.9 controlled through contracts, rental agreements or leases, or under manure agreements) of which 8,853.1 are spreadable acres on 25' setbacks under SWQMA option 1 and 8,698.4 spreadable acres under SWQMA option 5.
6. That some fields included in the NMP are directly adjacent to or have high potential to deliver nutrients and sediment to Octonto River (listed 303(d) impaired water by 'impairment unknown' & 'mercury'), Messenger Creek (listed 303(d) impaired water by 'unknown pollutant'), White Clay Lake (listed 303(d) by 'total phosphorus'), Mud Lake (listed 303(d) impaired water by 'total phosphorus'), Shawano Lake (listed 303(d) by 'total phosphorus' & 'mercury'), Newton Lake (listed 303(d) impaired water by 'total phosphorus'),
7. That some fields included in the NMP are directly adjacent to or have high potential to deliver nutrients and sediment to outstanding/exceptional waters including: South Branch Beaver Creek, South Branch Oconto River, & Wiscobee Creek.
8. That Zahns Farms LLC currently has at least 180 days of storage for liquid manure, process wastewater and rainfall and at least 59 days of storage for solid manure.

| | *Total Volume* | *Maximum Operating Level (MOL) Volume* |
|---|---|---|
| WSF 1-1990 | 2,748,411 gal | 2,093,732 gal |
| WSF 2 | 8,291,019 gal | 7,382,334 gal |
| WSF 3-2011 | 18,913,948 gal | 17,130,169 gal |

9. That 1 field is tiled.
    - BB-601

10. That all fields will be checked for the following features prior to/during manure or process wastewater applications: soil areas with possible shallow groundwater (i.e., within 24 inches of surface) at the time of manure application; required setbacks associated with wells, navigable waters, conduits to navigable waters, grassed waterways, wetlands, possible soil erosion/flow channels.
11. That surface applications of manure will not be completed when precipitation capable of producing runoff is forecasted within 24 hours of the time of planned application.

## CONDITIONAL NUTRIENT MANAGEMENT PLAN APPROVAL

The Department hereby approves the 2020-2024 Zahns Farms LLC Nutrient Management Plan subject to the following conditions and the applicable requirements of Ch. NR 243, Wis. Adm. Code:

FIELD AND MANURE MANAGEMENT

1. Fields not included in the NMP and new fields shall not receive manure or process wastewater applications until they have been properly soil sampled, entered into Snap Plus, evaluated for their nutrient needs, and approved by the Department.

2. The following fields are prohibited from receiving applications of manure or process wastewater:
    - AA-546 (default soil test)
    - AI- 502 (default soil test)
    - AI-503 (default soil test)
    - AI-519 (default soil test)
    - AI-520 (default soil test)
    - BT-216 (default soil test)
    - BT-217 (default soil test)
    - BZ-114 (default soil test)
    - BZ-115 (default soil test)
    - DL-147 (default soil test)
    - GH-190 (default soil test)
    - GH-191 (default soil test)
    - GH-192 (default soil test)
    - GH-193 (default soil test)
    - GH-194 (default soil test)
    - GH-271 (default soil test)
    - WS-237 (default soil test)
    - JA-533 (default soil test)
    - JM-201 (default soil test)
    - JP-211 (default soil test)
    - JP-213 (default soil test)
    - JP-214 (default soil test)
    - JP-215 (default soil test)
    - ML-169 (default soil test)
    - ML-170 (default soil test)
    - ML-171 (default soil test)
    - ML-172 (default soil test)
    - ML-173 (default soil test)
    - ML-174 (default soil test)
    - ML-175 (default soil test)
    - ML-176 (default soil test)
    - ML-177 (default soil test)
    - ML-178 (default soil test)
    - ML-179 (default soil test)
    - ML-428 (default soil test)
    - PE-309 (P>200ppm)

- RP-303 (default soil test)
- RP-304 (default soil test)
- RR-111 (default soil test)
- WS-238 (default soil test)
- ZN-120 (default soil test)

If Zahns Farms LLC wishes to use these fields for applications of manure or process wastewater all necessary information shall be submitted to the Department prior to application to demonstrate compliance with NR 243 and other applicable codes. Written Department approval amending this condition approval must be received prior to application.

3. If existing fields yield a soil test results greater than 200 ppm P, those fields would be prohibited from receiving manure or process wastewater applications, unless you obtain Department approval in accordance with NR 243.14(5)(b)2., Wis. Adm. Code.

4. All liquid manure samples collected may be analyzed, at a minimum, for percent dry matter, total nitrogen, percent $NH_4$-N, percent $NO_3$-N, phosphorus, potassium, and sulfur.

5. If manure sample results have a dry matter (DM) content less than 2.0% and the percent ammonium ($NH_4^+$) is greater than 75% of the total N, Zahns Farms LLC may use the following equation to adjust the first year available nitrogen when applications are injected or incorporated within 1 hour:

$$\text{First-Year Available N} = NH_4\text{-N} + [0.25 \times (\text{Total N} - NH_4\text{-N})]$$

6. Zahns Farms LLC shall record daily manure applications by using form 3200-123A. These forms shall be retained at the farm and provided to the department upon request.

7. Zahns Farms LLC shall annually submit a spreading report that summarizes the land application activities listed under NR 243.19(3)(c)5., Wis. Adm. Code by using form 3200-123.

<u>WINTER SPREADING</u>

8. Liquid manure applications during winter conditions, as defined by NR 243.14(7), Wis. Adm. Code, are prohibited with the exception of emergency applications.

9. The following field(s) are <u>approved</u> for winter spreading solid manure, emergency applications of liquid manure and frozen liquid manure:
   - RH-125
   - RH-126
   - JO-229
   - JP-151
   - JP-159
   - JP-160
   - RR-111
   - MO-112
   - FT-212
   - DF-204
   - JM-201
   - DR-133
   - DR-134
   - AW-121
   - AI-501
   - AI-513
   - AI-514
   - AI-516
   - AI-517
   - AI-518
   - JA-532
   - OL-232
   - OL-231

10. Winter spreading of solid and liquid manure may not occur during the “high risk runoff period” pursuant to s. NR 243.14(6)(c) and NR 243.14(7)(c), respectively.

11. Winter applications of liquid manure shall only occur under emergency situations, after notifying the Department and receiving verbal approval.

12. Liquid applications shall be limited to 3,500 gallons per acre or 30 lbs. P per acre, whichever is less, on slopes 2-6% and 7,000 gallons per acre or 60 lbs. P per acre, whichever is less, on slopes 0-2%. Winter applications of solid manure shall be limited to 60 lbs. P per acre.

HEADLAND STACKING

13. The following headland stacking sites are denied as they do not meet criteria for depth to bedrock:
    - BS-118-A
    - BS-118-B
    - BS-118-C
    - BS-118-D
    - BZ-114-A
    - BRK-113-A
    - BRK-113-B
    - RH-130-A
    - RH-130-B
    - DR-133-B
    - DR-133-A
    - DR-134-A
    - DR-134-B
    - DR-134-C
    - DR-134-D

MANURE & PROCESS WASTEWATER IRRIGATION

14. Irrigation of manure or process wastewater is prohibited.

SUBMITAL AND RECORDKEEPING REQUIREMENTS

15. A copy of this conditional approval shall be included in all future annual Nutrient Management Plan Updates in addition to the NR 243 and NRCS 590 checklists.

This conditional approval does not limit the Department's regulatory authority to require NMP revisions (based upon new information or manure irrigation research findings) or request additional information in order to confirm or ensure your farm operation remains in compliance with NR 243 and your WPDES permit conditions. If additional information, project changes or other circumstances indicate a possible need to modify this approval, the Department may ask you to provide further information relating to this activity.

Please keep in mind that approval by the Department of Natural Resources – Runoff Management Program does not relieve you of obligations to meet all other applicable federal, state or locate permits, zoning and regulatory requirements.

If you have any questions regarding this approval I can be reached at 608-212-8460 or Ashley.Scheel@Wisconsin.gov.

Sincerely,

Ashley Scheel, CCA
WDNR Nutrient Management Plan Reviewer
Wisconsin Department of Natural Resources

cc: Brian Hanson, WDNR Agricultural Runoff Specialist (Brian.Hanson@Wisconsin.gov)
Joseph Baetan, WDNR Watershed Field Supervisor (Joseph.Baetan@Wisconsin.gov)
Christopher Clayton, WDNR Runoff Management Section Chief (Christopherr.Clayton@Wisconsin.gov)
Aaron O'Rourke, WDNR Nutrient Management Program Coordinator (Aaron.Orourke@Wisconsin.gov)
Tony Salituro, WDNR Intake Specialist (Anthony.Salituro@Wisconsin.gov)
Scott Frank, Shawano County (Scott.Frank@Co.Shawano.Wi.Us)
Ken Dolata, Oconto County (Ken.Dolata@Co.Octonto.Wi.Us)
Bill Schaumberg, Tilth Agronomy Group, Inc (Bill@Tilthag.com)
File

**State of Wisconsin**
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Madison WI 53707-7185

Scott Walker, Governor
Cathy Stepp, Secretary
Telephone 608-266-2621
FAX 608-267-3579
TTY Access via relay - 711

November 10, 2015

FILE REF: R-2013-0208
WPDES Permit #: WI-0061506

Robert Zahn
Zahn's Farm, LLC
11620 County Road H
Gillett, WI 54124

Subject: Review of the Post Construction Report for Zahn's Farm, LLC at, Sec 8, T28N, R18E, Gillett Township, Oconto County

The Water Division of the Wisconsin Department of Natural Resources (the Department) received a post-construction report submitted on behalf of Zahn's Farm, LLC by Richard Seas, P.E., Roach and Associates, LLC on December 6, 2013 for the construction of a feed storage area, leachate basin, detention basin, vegetated treatment area and transfer system that was approved on August 8, 2012 under DNR project number R-2012-0094 and a modification dated June 10, 2013 under DNR project number R-2013-0104. The report was reviewed by the Department in accordance with s. 243.15(10), Wis. Adm. Code. The post construction report was checked for compliance for the following facilities and systems based on the information provided within the report.

- **Feed Storage Area**: The constructed facility was modified from what was approved in R-2012-0094 and R-2013-0104. Approximately one half of the proposed feed storage area was constructed. Due to changes that were made, it appears that the approved leachate runoff controls were not implemented as approved and as required in NRCS 629 – Waste Treatment. Additional investigation is required in order to determine if the facility is compliant with s. NR 243.15(4) and (9), Wis. Adm. Code and NRCS Standards 629 and 634.
- **Leachate Basin (itself)**: The constructed facility was constructed as approved in R-2012-0094 with minor width and elevation changes, which is typical of most construction projects. Based on the information provided, the facility is compliant with s. NR 243.15(3), Wis. Adm. Code and NRCS Standard 313 Table 5.
- **Detention Basin (itself)**: The constructed facility location was significantly modified from what was approved in R-2012-0094. The original approval had most of the basin on the north side of the leachate basin. However, the basin was constructed most on the south side of the leachate basin. Other than the location change, minor width and elevation changes were made, which is typical of most construction projects. The facility is compliant with s. NR 243.15(3), Wis. Adm. Code and WCS 1001.
- **Vegetated Treatment Area**: The constructed facility was constructed as approved in R-2012-0094 with minor width and elevation changes, which is typical of most construction projects. The facility is compliant with s. NR 243.15(2) and (9), Wis. Adm. Code and NRCS Standard 635.
- **Transfer Systems**: The constructed trasfers systems for the leachate runoff controls and vegetated treament area was partially constructed as approved in R-2012-0094 with minor width and elevation changes, which is typical of most construction projects. The transfer system from the detention basin to the vegetated treatment area and transfer system from the leachate basin to the waste storage pond are compliant with s. NR 243.15(4), Wis. Adm. Code and NRCS Standard 634. The leachate collection system for draintile does not seem to comply with s. NR 243.15(4), Wis. Adm. Code and NRCS Standard 634.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
For the Secretary

Jeff Kreider
Water Resources Engineer
Bureau of Watershed Management

Email:

Richard Seas; P.E.
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Ken Dolata
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Danielle Block; DNR
Northeast Region
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Jeff Kreider
DNR, Central Office
jeff.kreider@Wisconsin.gov

## Hanson, Brian G - DNR

**From:** Jennifer Keuning <Jennifer.Keuning@ghd.com>
**Sent:** Friday, April 3, 2020 7:36 AM
**To:** Hanson, Brian G - DNR
**Cc:** zahnsfarmsllc@granitewave.com; Bill Schaumberg
**Subject:** 11211712-Zahns Farms Update

Good Morning Brian,

Thank you for taking the time to speak with me about the permit renewal process on Wednesday for Zahns Farms in Oconto County. I met with Bob and his boys along with Bill Schaumberg yesterday to review items needed to get the permit renewal moving.

Bill will re-submit an updated permit application in Sharepoint along with an updated NMP narrative and the Post Construction Information provided by Oconto County LCD for the Concrete WSP constructed in 2011.
In addition, I have discussed your list of concerns with the Farm and have generated the following responses:

**Issue: Bahrke Farm outdoor lot**
Farm's Response: The steers housed at the site are ready to go to market. Once they are shipped the facility will be razed, use of the outdoor lot discontinued and the well abandoned by a licensed well driller. The site will become crop land and will be added into Zahn's NMP.

**Issue: Dirt Lot at Home for Heifers**
Farms' Response: This lot will be seeded with grass to make a CAFO vegetated area. The Farm has already consulted with Bill Schaumberg to determine the appropriate seed mix and the farm plans to seed the lot in April.

**Issue: 1990's constructed manure pit**
Farm's response: The farm has complete confidence in this structure and will complete an engineering evaluation in accordance with the schedules section of the renewed permit.

**Issue: 2011 Concrete Lined Lagoon Post Construction Documentation**
Farm's reponse: The post construction documentation has been attained from Oconto County LCD and will be submitted via Sharepoint with the updated application information

**Issue: Feed Pad and Leachate System**
Farm's response: The Farm understands that the post construction report was rejected by WDNR because the constructed system did not match the approved Plans & Specs. A complete engineering evaluation of the feed pad and associated runoff controls will be completed in accordance with the schedules section of the renewed permit. Interim controls including the berm located on the north side of the feed pad will be maintained until an evaluation is complete and any long term measures can be designed and implemented.

**Issue: Haylage Only Feed Pad does not have runoff controls.**
Farm's Response: This area will continue to be used to only store haylage or ground high moisture shelled corn (HMSC). At this time there is one small pile of haylage remaining in this area. Moving forward the space will not be used unless it is needed for overflow storage area for haylage or HMSC. If necessary, interim measures will be implemented to address any issues with runoff from this area.

**Issue: Calf Hutch pad on north side of County H does not have runoff controls.**

Farm's Response: The farm plans to remove hutches from this area and relocate them to the south side of County H in order to free up space for grain bins and other non-reviewable structures. If necessary, interim measures will be implemented to address any issues with runoff from this area.

The Farm would like to keep a sample point for the proposed anaerobic digester and separated manure solids and plans to hold off on the advanced water treatment system as it relates to this permit renewal in order to keep this process moving. The farm fully intends to install an advanced water treatment system in the future that will include clean water discharge to surface water but we believe that should be handled in a permit modification down the road so we have adequate time to fully plan the system and work with WDNR on the clean water discharge permit.

As you know Zahns would like get the permit renewal moving and I will serve as your point of contact related to these items moving forward. Please let me know if there is any additional information you need.
Thanks for your time and willingness to work with us.

Thanks
Jen

**Jennifer L. Keuning, M.S. | A GHD Associate**
**Environmental Scientist**

**GHD**
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**Connect**

## Hanson, Brian G - DNR

**From:** Jennifer Keuning <Jennifer.Keuning@ghd.com>
**Sent:** Friday, April 10, 2020 1:34 PM
**To:** Hanson, Brian G - DNR
**Cc:** zahnsfarmsllc@granitewave.com; Bill Schaumberg
**Subject:** 11211712-Zahns Farms Update

Hi Brian,

Thanks for the call today. As a follow up to your question, there is currently no leachate/precipitation runoff from the feedpad bypassing the collection basin. Any runoff on the north side of the feed pad is directed into the collection system via the interim controls (earthen berm) built on the north side of the feed pad. This is an area that Bob and sons will continue to monitor to ensure that the berm is doing its job and directing any runoff into the collection system.

Please let me know if you have other questions. We can review a draft of the permit whenever it is available.

Thanks
Jen

**Jennifer L. Keuning, M.S. | A GHD Associate**
**Environmental Scientist**

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---

**From:** Hanson, Brian G - DNR <brian.hanson@wisconsin.gov>
**Sent:** Friday, April 3, 2020 10:07 AM
**To:** Jennifer Keuning <Jennifer.Keuning@ghd.com>
**Cc:** zahnsfarmsllc@granitewave.com; Bill Schaumberg <bill@tilthag.com>
**Subject:** RE: 11211712-Zahns Farms Update

Jen,

Thanks for your help on keeping this process moving forward. You answers are exactly the information I was looking for. I only have 1 follow up question. Did you discuss what appears to be leachate running directly into the detention basin as it shows on the aerial photo below. If this is occurring, please respond as to what interim measures will be taken to prevent discharges until permanent solutions are in place.

**We are committed to service excellence.**
Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

Brian Hanson
Phone: (920) 366-3302
Brian.Hanson@wisconsin.gov

---

**From:** Jennifer Keuning <Jennifer.Keuning@ghd.com>
**Sent:** Friday, April 3, 2020 7:36 AM
**To:** Hanson, Brian G - DNR <brian.hanson@wisconsin.gov>
**Cc:** zahnsfarmsllc@granitewave.com; Bill Schaumberg <bill@tilthag.com>
**Subject:** 11211712-Zahns Farms Update

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As you know Zahns would like get the permit renewal moving and I will serve as your point of contact related to these items moving forward. Please let me know if there is any additional information you need.
Thanks for your time and willingness to work with us.

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Jen

**Jennifer L. Keuning, M.S. | A GHD Associate**
**Environmental Scientist**

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**Connect**

## Hanson, Brian G - DNR

**From:** Jennifer Keuning <Jennifer.Keuning@ghd.com>
**Sent:** Thursday, June 18, 2020 3:24 PM
**To:** Hanson, Brian G - DNR
**Cc:** Zahn's Farms LLC
**Subject:** 11211712-Update on calf hutches and Bahrke Farm

Hi Brian,

Bob asked me to provide you an update on the calf hutches and Bahrke Farm.

The calves in the hutches on the north side of the County H are in the process of being relocated to the south side of the County H with the other calves. The will take some time as the calves are being moved as they are weaned from milk.

The steers at Bahrke Farm have been sold so the facility is now empty of cattle. The Farm plans to begin clean-up of the facilities as their schedule allows.

Let me know if you have any questions.
Thanks
Jen

**Jennifer L. Keuning, M.S. | A GHD Associate**
**Environmental Scientist**

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